

A NEW MICROPTEROUS SPECIES OF *CARVENTUS* STÅL
FROM CHILE (HEMIPTERA: ARADIDAE)

NICHOLAS A. KORMILEV

Research Associate in Entomology, Bernice P. Bishop Museum, Honolulu, Hawaii 96818; mailing address: 84-05 89th Street, Woodhaven, New York 11421.

Abstract.—The new species *Carventus chilensis*, here described, is the second American species of the genus. It is also the second case of micropterism for *Carventus*, the other having been described from Sri Lanka.

Through the kind offices of Henry Brailovsky, Seccion Entomologia, Instituto de Biologia UNAM, Mexico 20, Mexico, I had the privilege of studying two small lots of Aradidae, one from Chile, the other from Central America. For this I express my sincere gratitude.

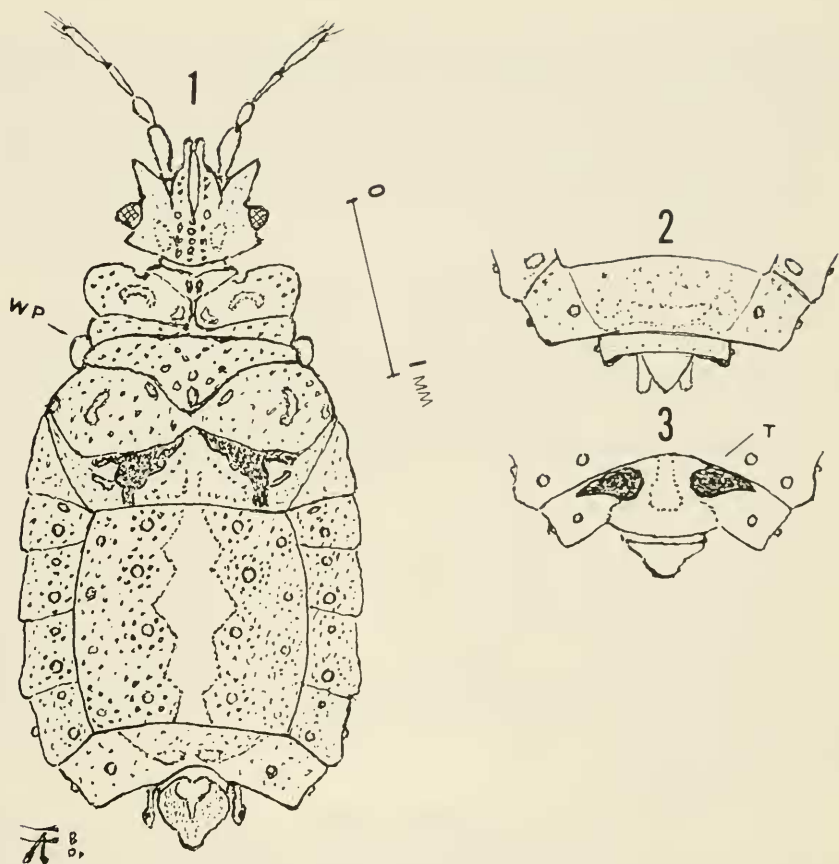
The Chilean specimens, mostly of common species, included two specimens of a new species of the genus *Carventus* Stål (1865). *Carventus* is primarily Australo-Oriental, including some 40 species occurring in the area from Sri Lanka and China south to Samoa and Tasmania. In the Americas, *Carventus* was previously represented by the single species, *Carventus mexicanus* Bergroth (1895), which, like most members of the genus, is macropterous; it was reported from Mexico and Panama. The Chilean Aradidae fauna is poor and now contains six species in five subfamilies: Aradinae, Carventinae, Isoderminae, Mezirinae, and Prosympiestinae.

The Central American collection, mostly of common species, contained a single Costa Rican specimen of *Aneurys hrnyi* Štys (1875) previously reported only from Cuba.

All measurements in this paper were taken with a micromillimeter eyepiece, 25 units = 1 mm. In the ratios the first figure represents the length and the second the width of parts measured.

Subfamily CARVENTINAE
Genus *Carventus* Stål, 1865
Carventus chilensis Kormilev, new species
Figs. 1-3

Male.—Elongate ovate; granulate and covered with thin layer of white incrustation. Micropterous.



Figs. 1-3. *Carventus chilensis*. 1, ♂, aspect from above; WP = wing pads. 2, ♀, tip of abdomen from above. 3, ♂, tip of abdomen from below. T = tubercles on sternum VII.

Head: Shorter than width across eyes (18:21); anterior process slightly constricted laterally, cleft apically, almost reaching tip of antennal segment I. Antenniferous tubercles stout, divaricate, blunt. Eyes small, semiglobose, strongly protruding. Postocular tubercles blunt, not reaching outer borders of eyes. Vertex with three parallel rows of granules; infraocular callosities small, ovate. Antennae thin, slightly longer than width of head across eyes (22.5:21); relative length of segments I to IV, 7:4:6.5:8. Labium reaching hindborder of labial groove, latter closed posteriorly.

Pronotum: Short and wide (10:28), posterior border straight. Hind-lobe strongly abbreviated, on median line $\frac{1}{4}$ as long as forelobe. Collar slightly sinuated anteriorly, separated from disc by deep incisures laterally. Antero-lateral angles broadly rounded, slightly produced forward and sideways, discally forming transverse lobes, granulate on surface. Lateral borders sinuate, without lateral tooth, incised between lobes. Foredisc with 2 (1+1)

short carinae, formed by fused granules, just behind collar; between these carinae and interlobal sulcus extends the narrow, deep median sulcus. Laterad of median sulcus disc granulate, with 4 (2+2) curved callosities. Hind-disc very short medially and slightly longer laterally.

Scutellum: Short and wide (10:28); lateral borders sinuate; apex angular; disc with dispersed granulations laterad of granulate median carina.

Metanotum: Forming 2 (1+1) large, transversely ovate plates, each plate with dispersed granulations and a curved callosity in the middle.

Hemelytra: Reduced to small pads, placed laterad of scutellum.

Abdomen: Subrectangular, longer than its maximum width across segment V (55:46). Tergum I in the form of 2 (1+1) triangular, oblique callosities fused with tergum II. The latter granulate, incrustate and produce forward medially separating callosities of tergum I. Central dorsal plate, consisting of terga III to VI, rectangular and flat; with a large flat median callosity with zig-zag lateral borders. Laterad of median callosity disc is granulate, incrustate, with apodemal impressions formula 1:1:2. Tergum VII is obliquely elevated over base of hypopygium, granulate, and incrustate. Connexivum wide; postero-exterior angles progressively more protruding and rounded; PE-VII rectangular. Paratergites clavate, reaching middle of cordate, declivous hypopygium, latter shorter than its maximum width (10:12). Spiracles II ventral, placed far from border; II to V also ventral but placed nearer to border; VI and VII lateral and visible from above; VIII dorsolateral. Sternum VII with 2 (1+1) large, shiny callosities, laterally attenuate and terminating in a point.

Legs: Unarmed.

Color: Yellow brown, incrustation white.

Female.—Similar to male but larger. Paratergites short, rounded posteriorly, reaching basal $\frac{1}{3}$ of tricuspidate segment IX. Sternum VII without callosities. Spiracles VIII lateral.

Measurements: Head, 20:22; relative length of antennal segments I to IV, 7.4:7.5:9; pronotum, 12:32.5; scutellum, 10:31; abdomen, 65:52 (across segment IV); width of metanotum, 42:5; width of tergum VIII, 18.

Total length.—♂, 3.76, ♀, 4.40 mm; width of pronotum: ♂, 1.12, ♀, 1.30 mm; width of abdomen: ♂, 1.84, ♀, 2.08 mm.

Holotype.—♂, CHILE, Prov. Ñuble, Los Troncos; 25.V.1977, G. Moreno leg. Deposited at the Seccion Entomologia, Instituto de Biologia UNAM, Mexico 20, Mexico.

Allotype.—♀, CHILE, Prov. Concepción, Neuquén; 4.X.1972, T. Cekalovic leg. Deposited in the Kormilev collection.

Remarks.—The presence of callosities on sternum VII of the males allies *C. chilensis* to the Australo-Oriental species, all of which have callosities or calloused tubercles on that segment. In contrast, the single American

species of the genus, *C. mexicanus* Bergroth, and the subgenus *Burgeonia* Schouteden, which contains all the African species of it, lack these modifications of sternum VII of the males.

Carventus chilensis is related to *C. micropterus* Kormilev and Heiss (1979) from Sri Lanka but is smaller in size; has the anterolateral angles of pronotum forming ovate lobes; has the posterior pronotal disc more abbreviated; has antennal segment IV (not I) longest; and has a different positioning of the spiracles.

LITERATURE CITED

- Bergroth, E. 1895. Aradidae novae. Wien. Ent. Ztg. 14(5): 167-171.
- Kormilev, N. A. and E. Heiss. 1979. New Aradidae from Ceylon and Malaya in the British Museum (N.H.) (Heteroptera). Orient. Insects 13(1-2): 155-162.
- Stål, C. 1865. Hemiptera Africana, Vol. 3. Stockholm. 200 pp.
- Štys, P. 1975. *Aneurys hradyi* sp.n. from Cuba (Heteroptera, Aradidae). Acta Entomol. Bohemoslov. 72(1): 30-33.